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ABSTRACT

The Annehurst Curriculum Classification System (ACCS), a tool for matching individual learners with appropriate curriculum materials, was used with a group of fifty-nine students (Air National Guard officer candidates) and their four instructor-advisors to examine two issues: (1) the applicability of the ACCS in a highly structured, career-related, adult education program and (2) the appropriateness of the curriculum materials for the students in this program. During the second week of the six-week intensive course all sixty-three participants received two hours of training in ACCS procedures for assessing learner characteristics. Students completed the self-assessment and instructors the student assessment at that time and again at the end of the course. Researchers analyzed all print and non-print curriculum materials using ACCS criteria. Findings indicate that the ACCS does have applications in such a program. Adult learners and instructors can assess student learning characteristics with minimal exposure to and training in the ACCS: patterns of ratings of the learner group by both students and instructors were generally consistent from pre- to posttest and were very similar. With reference to the suitability of the materials, profiles of student characteristics were high in experience, intelligence, and creativity while profiles of the materials tend to be low in all those as well as in motivation, emotion-personality, and social content. Modification of the materials was recommended. (JT)

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A COMPARISON OF THE HUMAN CHARACTERISTICS OF CURRICULUM MATERIALS USED IN AN AIR NATIONAL GUARD LEADERSHIP DEVELOPMENT PROGRAM WITH THE CHARACTERISTICS OF STUDENTS ENCOUNTERING THE MATERIALS: A STUDY USING THE ANNEHURST CURRICULUM CLASSIFICATION SYSTEM.

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by Russell L. French, R. Lewis Hodge, C. E. Cherry, Jr. and Oneida Martin[1]

INTRODUCTION

The Annehurst Curriculum Classification System (ACCS) developed by Frymier, et. al. (1977a, 1977b) at the Annehurst School in Westerville, Ohio, as a tool for matching individual learners with appropriate curriculum materials has been the focus of a concentrated, systematic research effort for more than two years. Several studies have been completed and reported previously, and seven others including this one are being reported at this meeting. The research on the Annehurst System has provided not only important data about the system, but it has also demonstrated the utility of the system as an important tool for conducting curriculum and instruction-related research.

To date, studies have supplied data regarding a) the characteristics of materials available to and used by particular learners (Davis, et. al,, 1977), b) the characteristics of materials available in particular content

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fields and subject areas (Johnson, et. al., 1977), and c) the ability of teachers to match curriculum materials to learners (Grady, et. al., 1977). However, little information has been gathered about 1) the characteristics of adult learners in environments other than the public schools, 2) materials used by adult learners in those environments, or 3) the applicability of ACCS to these learners and environments. This study attempted to address those issues.

PURPOSE

The purpose of this study was to answer six questions:

1. Does the Annehurst Curriculum Classification System have application in a highly structured, career-related, adult education program?
2. Can adult learners assess their own learning characteristics with minimal exposure to and training in the ACCS?
3. Can instructors assess the characteristics of adult learners with limited exposure to the learners and minimal training in ACCS?
4. How do the assessments of learner characteristics by instructors and by learners themselves compare or differ?
5. What are the major characteristics of curriculum materials used in this particular adult education program as coded by the Annehurst Curriculum Classification System?
6. How do the general characteristics of the curriculum materials encountered by the adult learners compare with the general characteristics of the learners?

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SETTING FOR THE STUDY

More than ninety thousand Air National Guard (ANG)men and women comprise the primary reserve component of the United States Air Force. Their primary mission is to be trained and ready for immediate call to active duty. The Air National Guard Professional Military Education Center (PMEC) located at Knoxville, Tennessee is the only formal resident training program within the Air National Guard. One of the four schools which constitute the Center is the Academy of Military Science (AMS). Those who attend the Academy are engaged in a six-week program training potential commissioned officers for the Air National Guard.

Officer candidates for AMS are selected by the fifty states, the District of Columbia and Puerto Rico. After their initial selection, each candidate for AMS is screened by the Air National Guard Bureau and the United States' Air Force. Those who ultimately enter the Academy of Military Science Program and complete it successfully are commissioned in the Air National Guard as reserve officers of the U. S. Air Force. It can be assumed that all students in the AMS program are highly motivated to do well in their studies. All who graduate from the program will be commissioned, and those who do not hold bachelors' level college degrees can receive college credit for their work. Additionally, those who enter the AMS program usually have career plans which would be completely destroyed should they fail the course.

Like all schools within the Professional Military Education Center, AMS is accredited by the Southern Association of Colleges and Schools. Specifically, PMEC and its resident schools are affiliated with the Southern Association's Commission on Occupational Educational Institutions.

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This unique adult education program, the Academy of Military Science within the Air National Guard's Professional Military Education Center, provided the setting for the study. The six-week AMS program occupies approximately eight hours per day for the student. It encompasses education in communication skills, Air Force and National Guard history and tradition, officer leadership, physical training and drill and ceremonies. Both print and non-print curriculum materials are used in the instructional process.

DESIGN AND PROCEDURES

A. The Student Population

One class of officer candidates provided the data regarding self-ratings and instructor ratings. The specific class used in the study entered the AMS program on August 14, 1978 and graduated on September 21, 1978. Fifty-nine students entered the program, and fifty-eight graduated. Although most AMS classes contain one or two female students, all participants in this particular class were male.

The fifty-nine subjects (students) included in the study ranged in age from twenty-one (21) to forty-five (45) years. Average age was 30.5 years. Subjects averaged 15.6 years of education with fifty-seven (57) percent holding a Bachelor's or higher degree. None had less than a high school diploma. Among this group, the average length of military service was 9.1 years. Of the fifty-nine class members, seven were scheduled to go to pilot training, six to navigator training, and forty-six to non-rated positions after completion of the program.

During the six weeks of instruction all normal procedures

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were followed. Students were divided as usual into four groups. Each group was assigned an instructor who served as their primary advisor and counselor. As usual, the first two class days included counseling sessions and close contact between each advisor and his or her assigned students.

B. The Instructors-Advisors

Four instructors-advisors served the fifty-nine students enrolled in the AMS program. Three of the instructors were males; one was female. The instructors ranged in age from twenty-nine (29) to thirty-five (35) years with the average age being thirty-one (31).

All four instructors possessed the Bachelor's degree. Two had completed several graduate courses.

Among this group the range of military service was from three to twelve years[2] with the average being nine years. The three male instructors all held the rank of captain while the female instructor held the rank of Second Lieutenant.

Before becoming instructors in the Professional Military Education Center, the career field of two of the instructors was that of aircraft maintenance officer. One instructor had been an aircraft navigator, and one (the female instructor) had been weapons controller.

At the beginning of the class used in this study, each

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[2]The female instructor had three years of military service. Each of the three male instructors had twelve years of service.

instructor was assigned fifteen (15) students[3] to whom he/she would serve as advisor and counselor. As previously indicated, the first two days of class included intensive counseling sessions and close contact between the advisor and his/her students.

C. Procedures: Assessment of Learner Characteristics

In securing approval for the study, discussions were held between the researchers and the entire AMS staff (including the four instructors who would work with this particular class). However, details of the Annehurst Curriculum Classification System were not discussed, nor were details of the research design.

After one week of contact between the four instructors/advisors and the fifty-nine students in the program, all sixty-three persons were given two hours of training simultaneously in the ACCS procedures for assessing learner characteristics. At the conclusion of the training session, each student completed a self-assessment, and each advisor/instructor completed an assessment for each of his/her assigned students.[4]

On the final day of the course (five weeks later), each student again completed a self-assessment, and each advisor completed a second assessment of each student assigned to her/him.

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[3]Obviously, one instructor was assigned only fourteen students since the class contained fifty-nine participants.

[4]See Appendix A for a copy of the assessment instrument, and materials provided to instructors and students during the training session.

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No additional taining was conducted between the first and second assessments with either students or instructors.

It should be noted at this point that the AMS program regularly includes a subjective evaluation of each student by her/his advisor. This evaluation focuses on the desired qualities of an Air Force or Air National Guard Officer. Students receiving evaluative ratings below the prescribed standards are referred to a faculty board of review. This board weighs the data available and determines whether or not the student shall pass or fail the course. In the first few days of the program, prior to the ACCS training session, each student had been thoroughly briefed on the AMS evaluation system. Having this information and whatever apprehensions about the program and its evaluation format, some students were reluctant to participate in the ACCS study, although the researchers assured them that self and instructor ratings of learner characteristics would in no way effect their evaluations or progress in the AMS program. Several students voiced opposition to the Annehurst self- and instructor-assessments, and one student refused to complete the initial assessment, stating that he feared it could be used against him in some way. (This student did complete the final ACCS self-assessment at the end of the program.)

After all instructor and student assessments were completed, the researchers tabulated the data, removing all individual references to assure anonymity to all participants. Where a student lacked all four possible ratings (self-ratings pre- and post - and

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instructor ratings pre- and post), his file was deleted from consideration. After these deletions, instructor ratings and student self-ratings for fifty-five (55) students were available for analysis.

Five questions structured the simple analysis of learner characteristics data:

1. To what extent did the learners change their self-ratings from low on the pre-assessment to high on the post-assessment in each of the ten ACCS categories?
2. To what extent did the learners change their self-ratings from high (pre-assessment) to low (post-assessment) in each of the ten ACCS categories?
3. To what extent did the instructors change their ratings of their students from low (pre-assessment) to high (post-assessment) in each of the ten ACCS categories?
4. To what extent did the instructors change their ratings of their students from high (pre-assessment) to low (post-assessment) in each of the ten ACCS categories?
5. How do student self-ratings compare with instructor ratings?

Pre- and post-ratings for each student by the instructor and by the student himself were charted, and simple percentages were computed for each of the following:

a) change in student self-rating.

b) change in instructor rating.

c) change in student self-rating low to high.

d) change in student self-rating high to low.

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e) change in instructor rating low to high.

f) change in instructor rating high to low.

g) no change in student self-rating.

h) no change in instructor rating.

D. Procedures: Assessment of Curriculum Characteristics

The researchers collected all print and non-print curriculum materials used in the AMS program and analyzed them using the criteria imposed by the Annehurst Curriculum Classification System.[5] Print materials consisted of four manuals or Student Study Guides:

1) Air Force and Air National Guard (21 chapters)

2) Leadership (17 chapters)

3) Professional Development (27 chapters)

4) Communications (14 chapters)

After examination of these study guides, the researchers decided that each chapter should be analyzed as a separate entity, since content and illustrations varied from chapter to chapter.

Non-print materials consisted of six (6) sixteen millimeter films, two (2) videotape presentations, one (1) audiotape presentation, eighteen (18) thirty-five millimeter slide presentations and six (6) thermofax transparencies. Non-print materials were rated in the same manner as the print materials using the ten ACCS categories.

After assessments of curriculum materials were completed, the number of high and low ratings in each ACCS category for each type of material (print and non-print) was tabulated, and simple

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[5]Appendix B contains a copy of the coding instrument and the description of the ten ACCS curriculum categories.

percentages of rating occurrence were computed.

FINDINGS

A. Learner Characteristics

Five questions were used to structure the data resulting from the assessments of learner characteristics by instructors/advisors and students themselves. Question one asked, "To what extent did learners change their self-ratings from low on the pre-assessment to high on the post-assessment in each of the ten ACCS categories?" Question three was a parallel question asking, "To what extent did instructors change their ratings of their students from low (pre-assessment) to high (post-assessment) in each of the ten ACCS categories? Findings pertinent to these questions are presented in graph 1 on the following page.

Fewer than the ten percent of the students changed their ratings of themselves from low on the pre-assessment to high on the post-assessment in six of the ACCS categories (experience, motivation, emotion-personality, social, visual perception, motor perception). Twenty percent (20%) or more of the students changed their self-ratings from low to high in creativity (20%) and verbal expression (22%). Fifteen percent (15%) of the students changed their ratings from low to high in the area of auditory perception, and eleven percent (11%) changed from low to high in the category of intelligence.

Change in instructor ratings from low to high was also limited. Only the Social (11%) and Verbal Expression (11%) categories reflected a directional change from low to high for more than ten

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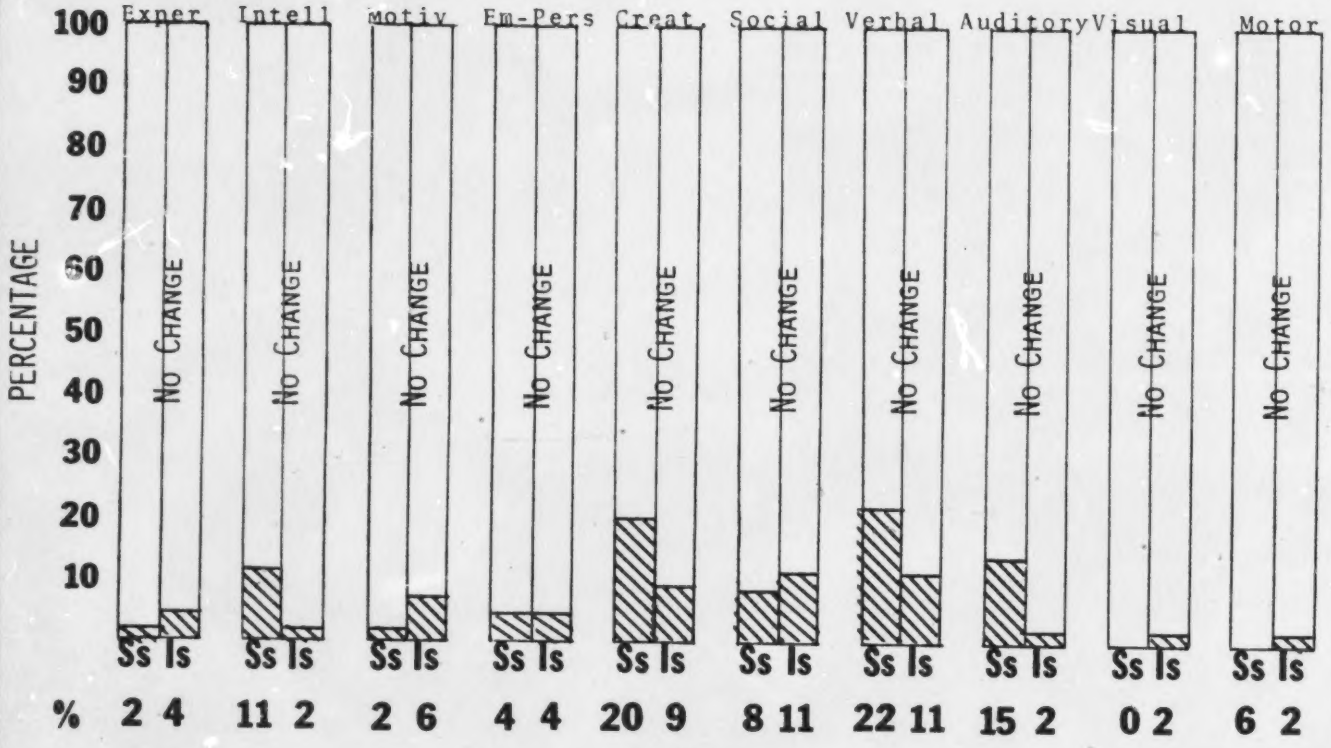
GRAPH NUMBER I

CHANGE IN PRE- TO POST-ASSESSMENT FROM LOW TO HIGH
BY STUDENTS(SS) AND INSTRUCTORS(IS)



percent of the students rated.[6]

Several other findings not reflected in the graphs may be of interest to the reader:

1. There was no agreement between any student and his instructor regarding a change in rating from low to high in any ACCS category.
2. The number of students who changed their self-ratings from low to high in at least one ACCS category was twenty (20). /Conversely, the number of students recording no changes of this type was thirty-five (35)/.
3. The number of students changed from low to high in at least one ACCS category by their instructors was thirteen (13). /Conversely, the number of students' ratings showing no changes of this type was forty-two (42)/ .

Question two asked, "To what extent did the learners change their self-ratings from high (pre-assessment) to low (post-assessment) in each of the ten ACCS categories?" Question four, the parallel question asked, "To what extent did instructors change their ratings of their students from high (pre-assessment) to low (post-assessment) in each of the ten ACCS categories?" Findings pertinent to these two questions are presented in graph 2.

Fewer than ten percent (10%) of the students changed their self-ratings from high to low or any characteristic. Instructor ratings of students reflected change of this type in only two ACCS dimensions, Social (13%) and Emotion-Personality (11%).

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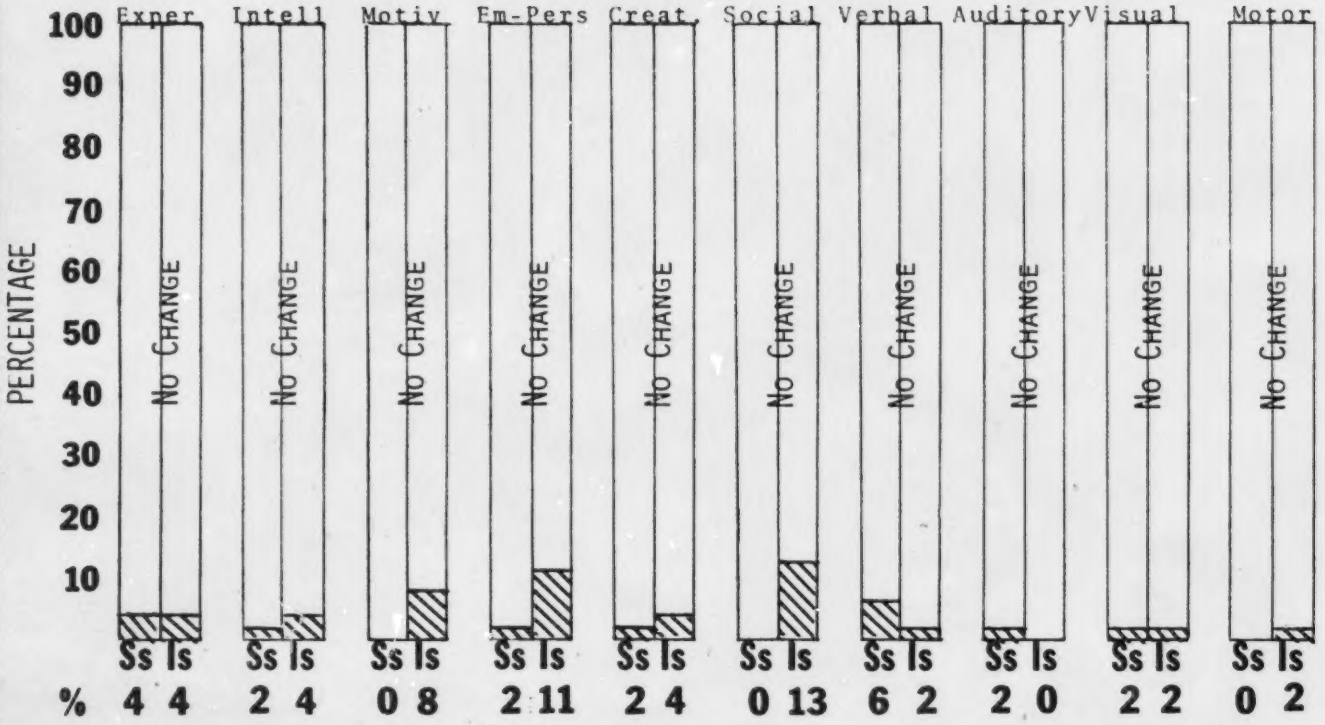
[6]All self-and instructor ratings are based on an N of fifty-five students.

GRAPH NUMBER II

CHANGE IN PRE- TO POST-ASSESSMENT FROM HIGH TO LOW
BY STUDENTS(Ss)AND INSTRUCTORS(Is)



Instructors changed their ratings of fewer than ten percent of their students in a downward direction in eight categories (experience, intelligence, motivation, creativity, verbal expression, auditory perception, visual perception, motor perception).

Again, several findings not reflected in graphs may be of interest:

1. There was no agreement between any student and his instructor regarding a change in rating from high to low in any ACCS category.
2. The number of students who changed their self-ratings from high to low in at least one ACCS category was five (5). /Conversely, the number of students recording no change of this type was fifty (50)/.
3. The number of students changed from high to low in at least one ACCS category by their instructors was thirteen (13). /Conversely, the number of student ratings showing no changes of this type was forty-two (42)/.

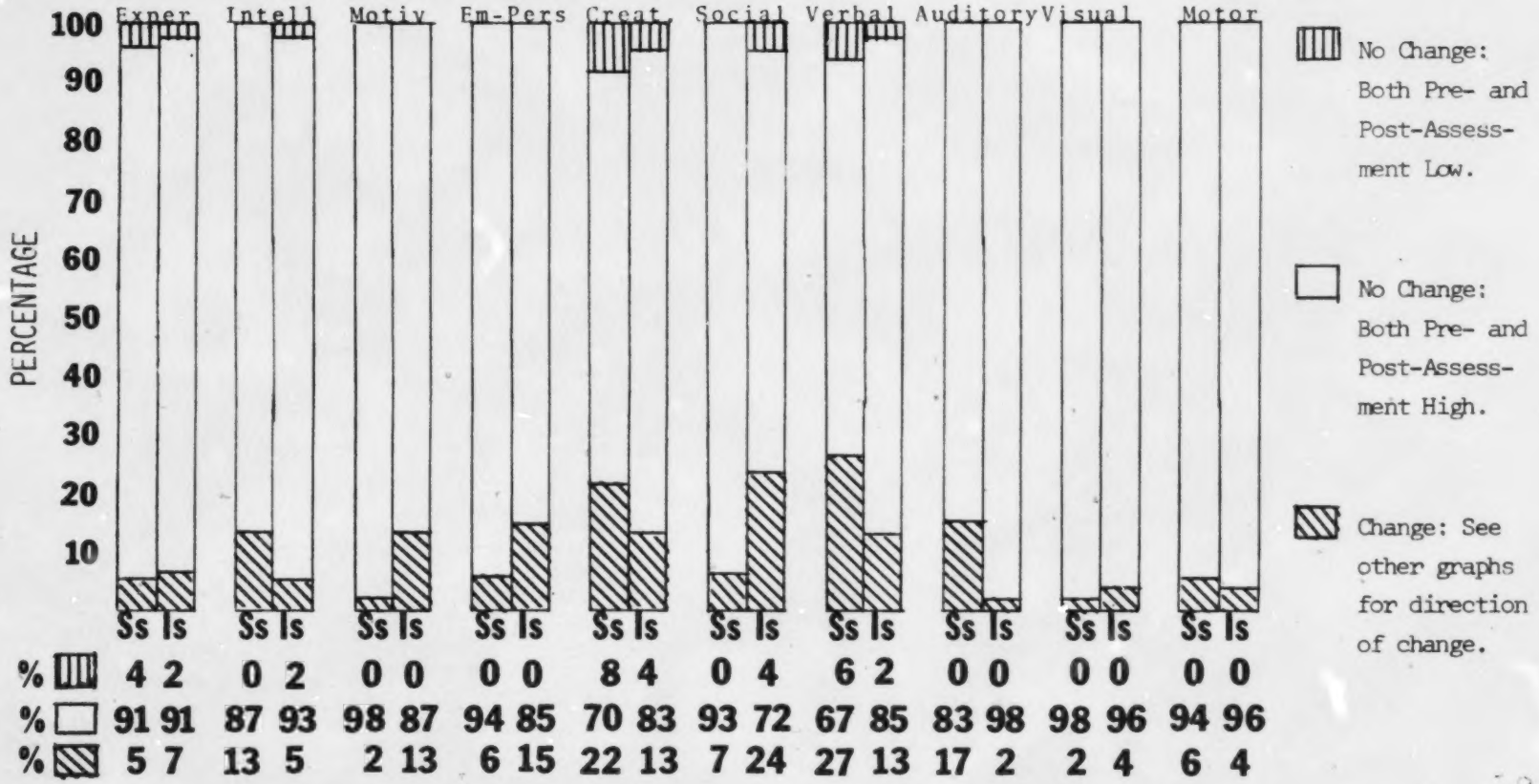
The fifth question posed as a means of structuring available data asked, "How do student self-ratings compare with instructor ratings?" Graph 3 presents findings pertinent to this question.

The most common pattern of pre-and post-ratings in all ACCS categories by both students and instructors was high-high. Student self-ratings in this pattern ranged from ninety-eight percent (98%) for the characteristic of visual perception to sixty-seven percent (67%) for the characteristic of verbal expression. Instructors

GRAPH NUMBER III

CHANGE VS NO CHANGE

BY STUDENTS (SS) AND INSTRUCTORS (IS)



also rated most students high in all categories on both their pre-and post-assessments. Instructor ratings in this pattern ranged from ninety-eight percent (98%) for the characteristic of auditory perception to seventy-two percent (72%) for the social dimension.

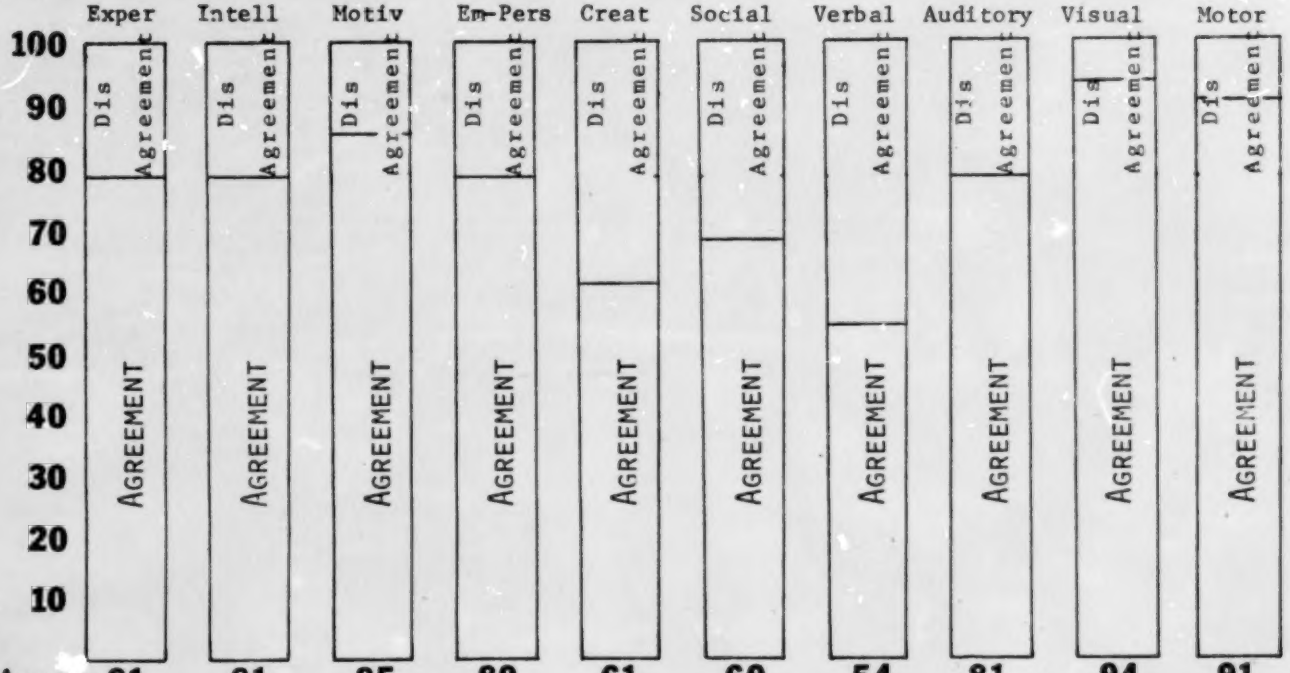
A comparison of student pre- to post-ratings with instructor pre- to post-ratings does reveal interesting differences for several learner characteristics, however. Instructors tended to rate more students high (on both pre- and post-assessments) in the dimensions of creativity, verbal expression and auditory perception. Students rated themselves high in the social dimension more often than did their instructors. (See graph 3 for the percentage differences.)

Graph 3 also shows that the percentages of both students and instructors who rated students low in any dimension on both the pre- and post-assessments were very small. In half the categories (5) there were no rating patterns of this type at all. Student self-ratings showed low-low assessments in only three categories: creativity (7%), verbal expression (6%), and experience (4%). Instructor ratings showed low-low assessments in five categories: creativity (4%), verbal expression (2%), experience (2%), social (4%), and intelligence (2%).

A comparison was made of each student's pre- and post-assessments with those given him by his advisor/instructor. Graph 4 summarizes the levels of agreement of rating in each ACCS category. Several points regarding student instructor agreement which are not clarified in the graph are worth mentioning:

GRAPH NUMBER IV

AGREEMENT/DISAGREEMENT BETWEEN STUDENTS AND THEIR INSTRUCTORS REGARDING PRE- TO POST- ASSESSMENT *



	Exper	Intell	Motiv	Em-Pers	Creat	Social	Verbal	Auditory	Visual	Motor
% AGREE-	81	81	85	80	61	69	54	81	94	91
DISAGREE-	19	19	15	20	39	31	46	19	6	9

*THE ONLY SITUATIONS IN WHICH THERE WAS AGREEMENT BETWEEN EACH STUDENT AND HIS INSTRUCTOR WAS IN RATINGS OF HIGH FOR BOTH PRE- AND POST-ASSESSMENT.

1. There was only one consistent area of agreement between students and instructors: many students who rated themselves high in an ACCS category on both the pre-and post-assessments were given similar ratings by their instructors.
2. There was no situation in which a student and his instructor were in agreement regarding a change in pre-post ratings from either low to high or high to low.
3. There was no situation in which a student rated himself low in a category on both the pre- and post-assessments and received the same low ratings from his instructor.

B. Curriculum Characteristics

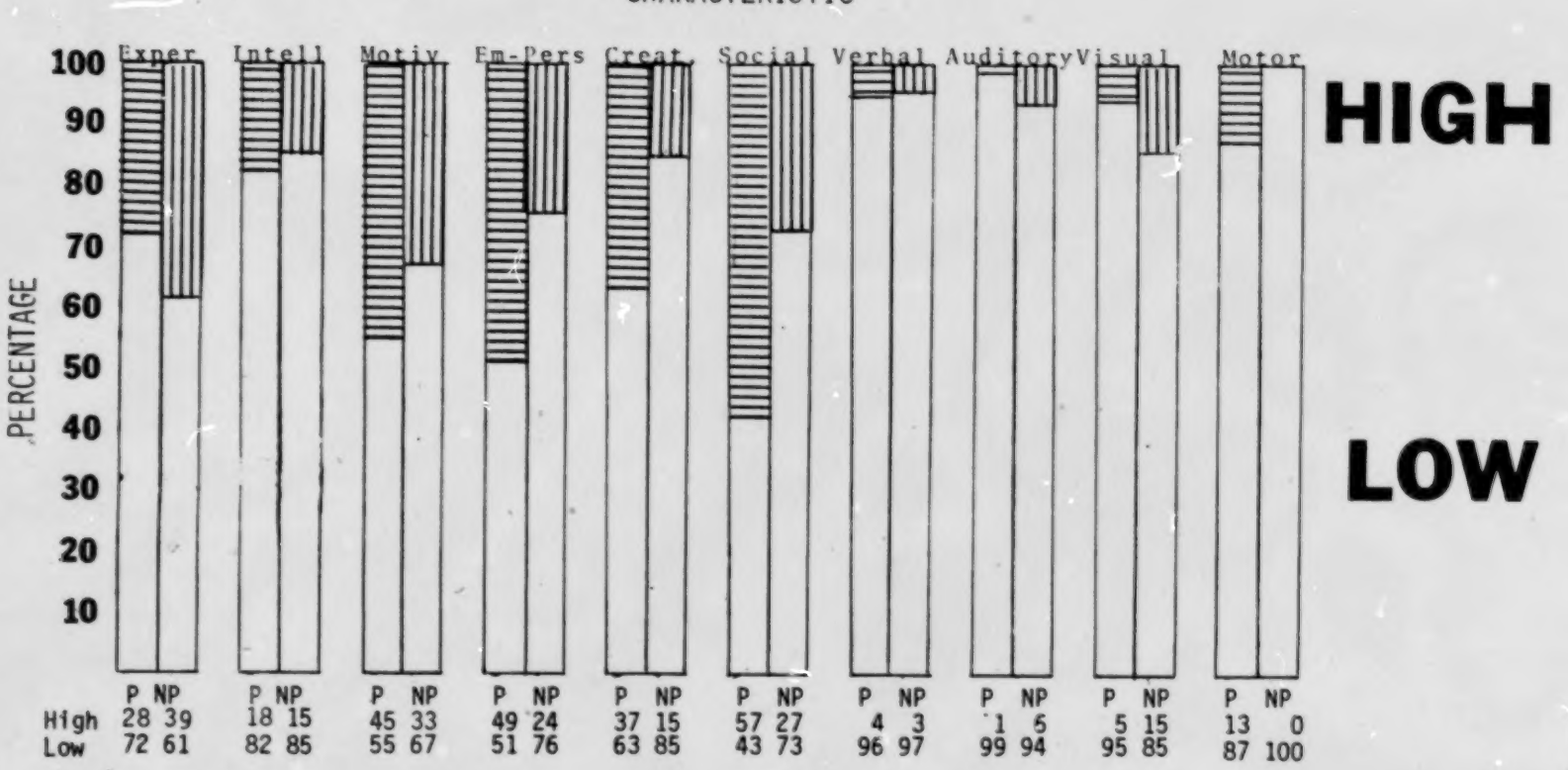
All print and non-print materials with which the AMS students studied came in contact were coded as high or low in each characteristic defined by the Annehurst Curriculum Classification System. Graph 5 presents the findings.

Print materials encountered by the students (79 pieces) were consistently low in all characteristics except the social. In the social dimension, fifty-seven percent (57%)of the print materials merited high ratings. Almost half of the print materials studied were high in emotion-personality factors (49%) and in motivation (45%).

It should be remembered that the conceptualization of the verbal expression, auditory perception, visual perception and motor perception characteristics for materials does not lend itself to high and low ratings. Rather, in these categories, materials are perceived as having potential for learners with perceptual or expressive problems (high) or as not being applicable to problems of

GRAPH NUMBER V

PRINT (P) vs. NON-PRINT (NP) MATERIALS



this type. Therefore, the Not Applicable (low) ratings in these categories for the materials studied indicates that few of these materials would be useful to learners with these types of learning problems.

Graph 5 also displays clearly the fact that the majority of non-print curriculum materials (33 pieces) in use in the AMS program merited low ratings using the Annehurst criteria.

Thirty-nine percent (39%) of the non-print materials rated high in motivation. Twenty-seven percent (27%) ranked high on the social dimension, and twenty-four percent (24%) were high in emotion-personality factors. Few of the non-print materials offered applicability to perceptual or expressive problems.

It is interesting to note that both print and non-print materials often rated high in the same three characteristics: social, emotion-personality, and motivation.

C. Comparison of Learner Characteristics with Materials Characteristics

Using the post-assessments of learner characteristics (both self-ratings and instructor ratings)[7], the investigators compared the characteristics of the learner group with the characteristics of the materials they encountered. Graph 6 displays the patterns found.

To develop the profiles displayed in graph 6, the investigators

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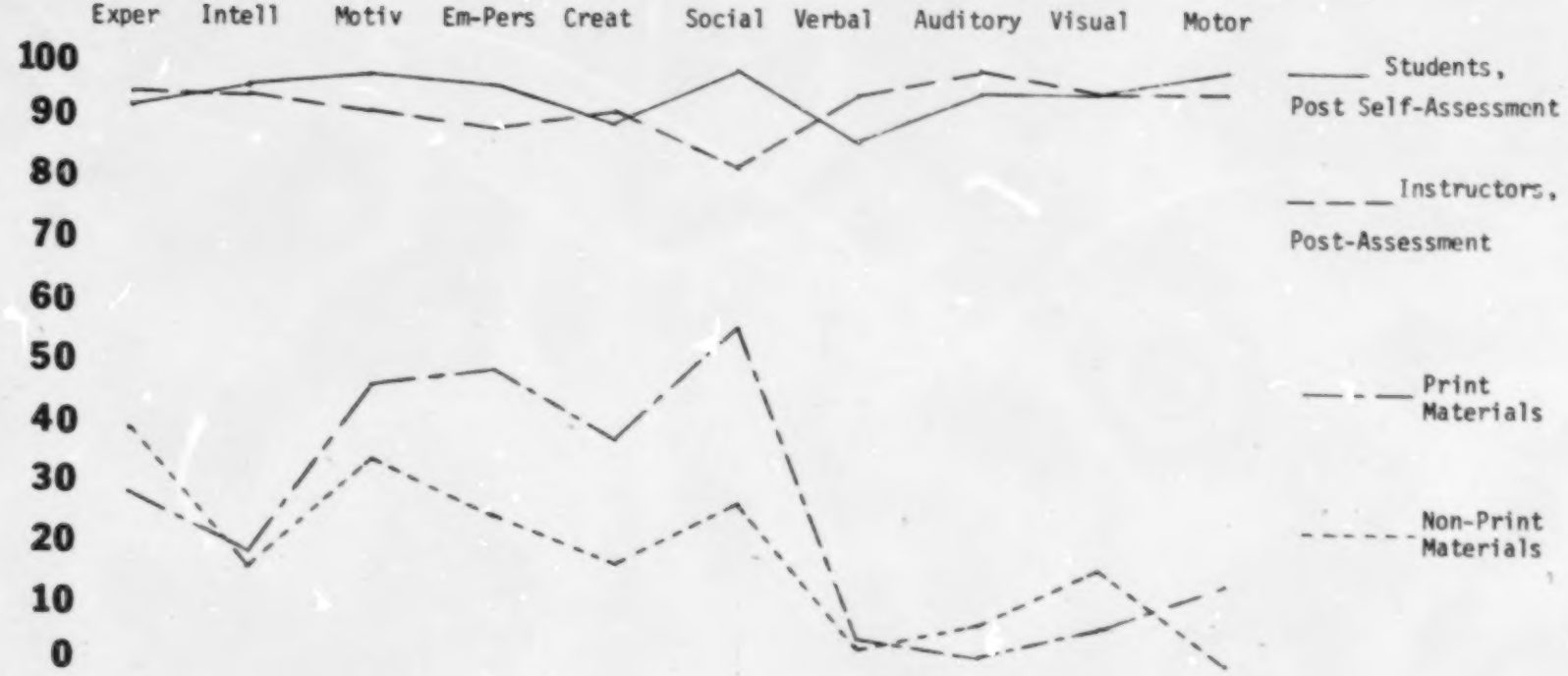
[7]Post-assessment data were used for the comparison because it was felt that they might offer a more accurate assessment by both students and instructors. At the time of post-assessment students were free from the pressures of performance and evaluation in the AMS program, and instructors had been interacting with students for five additional weeks.

GRAPH NUMBER VI

A COMPARISON OF STUDENTS AND MATERIALS

CHARACTERISTIC



used the percentages of high ratings found in each of the ten Annehurst categories in analysis of 1) instructor post-assessments, 2) student post self-assessments, 3) print materials and 4) non-print materials.

The patterns of learner characteristics assessed for the fifty-five adult learners by both the learners and their instructors were much higher than the patterns of characteristics found in the curriculum materials used by those learners. The most apparent difference in instructor and student post-assessments was in the social dimension where more students gave themselves high ratings than did their instructors. It is interesting to note that the category in which the greatest number of print curriculum materials rated high was the social category, although that dimension received the third greatest number of high ratings among non-print materials.

Overall, print materials received more high ratings across the ten ACCS categories than did non-print materials. The pattern is particularly noticeable in the dimensions of motivation, emotion-personality, creativity and social.

CONCLUSIONS AND DISCUSSION

This study was designed to answer six questions. Findings of the study should enable us to respond to those questions.

Question 1: Does the Annehurst Curriculum Classification System have application in a highly structured, career-related, adult education program?

A survey of the findings indicates that ACCS does have applications in a program such as the one studied. While some of the procedures used to

ascertain learner characteristics may not have been appropriate given certain program conditions (as discussed in response to question 2), neither instructors nor learners appeared to have difficulty in understanding, learning or applying the system. Analysis of curriculum materials using the Annehurst criteria provided important information about the compatibility of learners and materials, and AMS materials could be easily classified using the concepts and dimensions of the Annehurst System.

Question 2: Can adult learners assess their own learning characteristics with minimal exposure to and training in the ACCS?

Student self-ratings were generally consistent from pre- to post-assessment as were instructor ratings. The most common pattern of ratings was high (pre- and post) in all ten ACCS categories. After as little as two hours of training, the AMS students appeared to understand the concepts inherent in the Annehurst System and be able to apply them to themselves.

If any problem influenced the learner self-ratings, it was the anxiety of the learners produced by 1) the tangible rewards or lack of them associated with success in the program, 2) the perceived threat inherent in the AMS evaluation system which had been explained to students before the Annehurst System was introduced, and 3) the concern of students that instructor pre-assessments would become pre-judgments of their capability.[8] Given these conditions, student self-ratings may not have been entirely realistic. Students consciously or unconsciously may have tried to present themselves in the best light possible--assuming that high ratings were to be valued over low ratings.

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[8]See page 7 for a more detailed presentation of these program conditions.

In summary, it would appear that adult learners can learn the Annehurst Classification System and apply it to their own learning situations. It is not clear that they should be asked to do this in all situations. Perhaps, training beyond the minimal amount provided subjects in this study would alleviate anxieties as understanding of the ACCS, its assumptions, and uses is broadened and deepened. Further research in this area is needed.

Question 3: Can instructors assess the characteristics of adult learners with limited exposure to the learners and minimal training in ACCS?

Instructor ratings of student characteristics were highly consistent from pre- to post-assessments. Again the predominant pattern was high instructor ratings on both pre- and post-assessments. After the initial training session, instructors appeared to understand the concepts inherent in the ACCS and to be able to apply them. Five additional weeks of interaction with the students did little to change these initial ratings.

One is always suspicious of a consistent pattern of data within a given group when the focus is individual differences. However, there are four possible explanations for the existence of this pattern:

1) Instructor ratings were accurate. The students in the class represented a highly select group whose learner characteristics were quite similar in nature.

2) With minimal training (2 hours), instructors did not understand the Annehurst System well enough to make accurate assessments of student characteristics.

3) The concepts and/or procedures for assessment of individual differences encompassed in the Annehurst System do not actually discriminate among existing differences in adult learners in a program setting such as the one studied.

4) Instructors did not value the concepts and procedures inherent in the Annehurst System and, therefore, did not seriously engage themselves in the student assessment process.

This study has not provided enough information to indicate clearly the accuracy and applicability of any of these four explanations. The similarity of instructor and student ratings could be indicative of accurate assessments, or it could be attributed to several other factors. Further studies in settings such as this one with adult learners and their instructors are needed to clarify these findings.

Question 4: How do the assessments of learner characteristics by instructors and by learners themselves compare or differ?

Overall, the patterns of ratings of the learner group by both students and instructors were very similar. Both sets of raters gave a majority of high ratings in most ACCS categories. Where ratings changed from pre- to post-assessment there was no single instance of agreement between the student and his instructor regarding that change. Future studies may do more to clarify the phenomena reported here as has already been suggested.

Question 5: What are the major characteristics of curriculum materials used in this particular adult education program as coded by the Annehurst Curriculum Classification System?

Print materials encountered by the AMS students rated consistently low in eight dimensions as defined within the Annehurst Curriculum Classification System. In only one dimension (the social), did more than half of the print materials (57%) analyzed rate high. Forty-nine percent (49%) of the print materials rated high in emotion-personality factors, and forty-five percent (45%) rated high in motivation.

Non-print materials used in the AMS program also received a majority of low ratings in the Annehurst categories. When considered as a whole, non-print materials received their highest ratings in experience (39%) and motivation (33%).

The general conclusion which can be drawn about the AMS curriculum materials is that they tend to be low in experience, intelligence, motivation, emotion-personality, creativity and social content and that they have little to offer a learner with problems in the areas of verbal expression, auditory, visual or motor perception.

Question 6: How do the general characteristics of the curriculum materials encountered by the adult learners compare with the general characteristics of the learners.

The learner group tended to be high in experience, intelligence, motivation, emotion-personality, creativity and social factors. They did not tend to have many problems in verbal expression, auditory, visual or motor perception.

The materials used by this group tended to be low in experience, intelligence, and creativity. Approximately half of the print materials in use rated high in social factors, emotion-personality and motivation, but this was not equally true of non-print materials. The vast majority of the materials, print or non-print, were not applicable to teaching-learning situations in which there might be verbal expression problems or problems of visual, auditory or motor perception.

In essence, profiles of student characteristics were high; profiles of materials characteristics were low. The theory, research and assumptions encompassed in the Annehurst Curriculum Classification System do not imply that this relationship is all bad. Students who are high in these characteristics can learn from materials exhibiting either high or low characteristics. This does not appear to be true of learners who are characteristically low in these areas (Frymier, 1977a). However, it is desirable that students high in the characteristics defined within the ACCS receive

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materials high in those same characteristics to further stimulate them.

Since learners either high or low in motivation, emotion-personality, creativity and social factors can profit most from materials high in those characteristics, it would be desirable for the Professional Military Education Center to re-examine their materials with a view toward modification where appropriate. It would also appear appropriate for the PMEC staff to conduct further assessments of learner characteristics, so that knowledge of the general characteristics which students bring to the programs might be improved.

Finally, we must be careful not to lose sight of the individual student of the Professional Military Education Center (or any other educational enterprise) when studying group data. There were students in this study who were low in various learning characteristics (e.g., creativity, social factors). These individuals need materials appropriate to these conditions (notably, materials high in the characteristics given as examples). Meeting these individual differences and needs is the ultimate goal of an educational tool such as the Annehurst Classification System.

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DO NOT FILM THIS PAGE 38

APPENDIX A

LEARNER CHARACTERISTICS ASSESSMENT INSTRUMENT AND MATERIALS GIVEN STUDENTS AND INSTRUCTORS

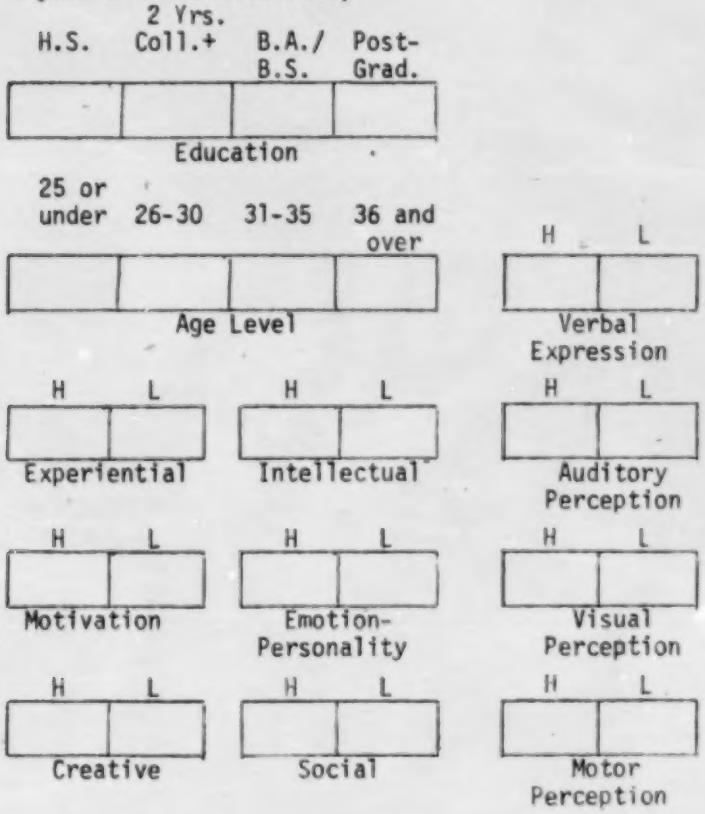
ANNEHURST CURRICULUM CLASSIFICATION SYSTEM

(Revised for PMEC - UTK, August 1978)

Name of Student_____

Name of Faculty Advisor_____

(Names will be used to match and to analyze data. However, names and results of data analysis will be kept confidential. Therefore, this form, when completed, will not be used in any way to determine anyone's AMS Evaluation.)



ANNEHURST CURRICULUM CLASSIFICATION SYSTEM
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LEARNERS'

VERBAL EXPRESSION (SPEECH)	
fluent speech	labored speech
responds in complete sentences	one-word response
relevant verbal response	verbal responses not relevant
pronounces common words properly	mispronounces common words
uses correct plural	uses incorrect plural
seldom makes grammatical errors	frequently makes grammatical errors
seldom makes syntactical errors	frequently makes syntactical errors
responds immediately	delays in responding

AUDITORY PERCEPTION	
can concentrate in a noisy situation	easily distracted by noises
perceives phonic sounds accurately	cannot perceive phonic sounds
recognizes spoken words which are partially presented	cannot recognize a spoken word when partially presented
understands words in songs	cannot understand words in songs
able to recall how things sound	cannot recall how things sound
able to restate words or sounds in sequence	cannot restate words or sounds in sequence
able to follow directions	cannot follow directions

CHARACTERISTICS

VISUAL PERCEPTION	
follows symbols from left to right easily	difficulty following symbols left to right
can sequence and match both objects and symbols	cannot sequence or match either objects or symbols
easily distinguishes an object from its background	cannot distinguish an object from its background
comprehends a variety of visual stimuli	easily confused by visual stimulation
copes with color-coded materials	difficulty with color-coded materials
easily identify similar objects or symbols in varying contexts	difficulty identifying objects or symbols in varying context
recalls visual stimuli in sequence easily	difficulty with visual sequential memory
discriminates between horizontal, curve, and diagonal	difficulty discriminating horizontal, curve, and diagonal
coordinates hand and eye movements skillfully	cannot coordinate hand and eye movements
forms letters easily	difficulty forming letters
completes incomplete visual forms or patterns	unable to complete incomplete forms or patterns

MOTOR PERCEPTION	
manipulates small objects easily and skillfully	has difficulty manipulating small objects
coordination between hand and eye is smooth	has difficulty with hand eye coordination
maintains body balance without difficulty	has difficulty maintaining body balance
moves rhythmically without difficulty	has difficulty moving rhythmically
has no difficulty with laterality and directionality	has difficulty with laterality and directionality
has no difficulty with spatial relationships	has difficulty with spatial relationships

LEARNERS' CHARACTERISTICS

EXPERIENCE	
has traveled widely	has not traveled much
stimulus-rich background	stimulus-poor background
has read a lot	has read very little
has mastered previous learnings	has not mastered previous learnings
has skills of learning	lacks skills of learning
high achievement	low achievement
extensive interests and activities	limited interests and activities

INTELLIGENCE	
rational	irrational
can integrate ideas	cannot integrate ideas
contemplative	shallow thinker
quick to learn	slow to learn
intrigued with complexity	intolerant of complexity
reflective with ideas	impulsive with ideas
has good memory	has poor memory

MOTIVATION	
energetic	lazy
persistent	easily discouraged
shows initiative	lacks initiative
enthusiastic	bored
tries hard	gives up
purposeful	aimless
inquisitive	indifferent
future-oriented	present-oriented
curious	uninterested
able to delay gratification	demands instant gratification

EMOTION-PERSONALITY	
patient	impatient
open-minded	closed-minded
accepts blame	blames others
good natured	moody
has sense of humor	lacks sense of humor
confident	lacks assurance
mature	immature
optimistic	pessimistic
independent	dependent
deliberate	impulsive
internal locus of control	external locus of control
dependable	undependable
responsible	irresponsible

CREATIVITY	
innovative	traditionalist
flexible	rigid
original	copyist
risk taker	cautious
fluent with ideas	restricted with ideas
autonomous	conforming
able to elaborate	difficulty elaborating
able to form new patterns or relationships	difficulty forming new patterns or relationships
imaginative	unimaginative

SOCIAL	
communicative	uncommunicative
participator	loner
cooperative	uncooperative
forgiving	holds a grudge
friendly	unfriendly
empathic	callous
sympathetic	unsympathetic
tolerant	prejudiced
altruistic	selfish
respectful	disrespectful

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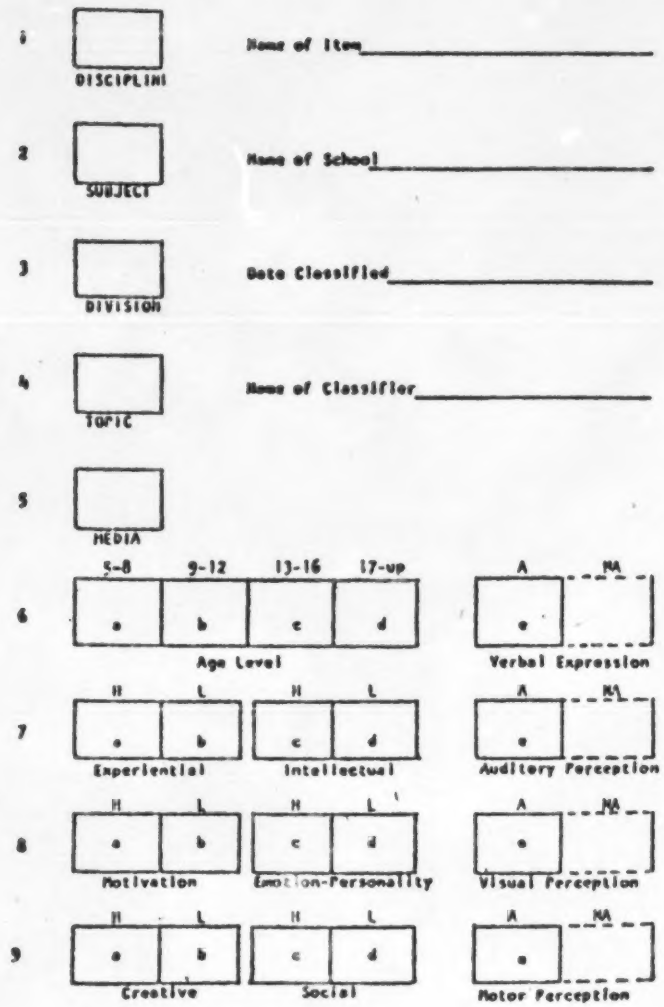
APPENDIX B

CURRICULUM CHARACTERISTICS ASSESSMENT INSTRUMENT AND DESCRIPTION OF THE ACCS CURRICULUM CATEGORIES

ANNEHURST CURRICULUM CLASSIFICATION SYSTEM



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CURRICULUM

EXPERIENCE •	
special terminology	common vocabulary
provides vicarious experience	provides direct experience
requires special training to use	no special training required
advanced/difficult reading level	simple/beginning reading level
advanced in nature	introductory in nature
representative of reality	original or actual thing
examples and illustrations are complex and difficult to understand	examples and illustrations are simple and understandable

INTELLIGENCE •	
concept-oriented	fact-oriented
abstract	concrete
intentions implicit	intentions explicit
criteria implicit	criteria explicit
complex organization	simple organization
evokes analysis-type thought	evokes recognition
evokes synthesis-type thought	evokes isolated-type thought
evokes evaluative-type thought	evokes recall

• MOTIVATION	
attractive	plain
stimulating	calming
evocative	routine
examples provocative	examples lacking or not provocative
marked contrast	contrast not evident
compelling	bland
unique	ordinary
complex	simple or uniform
immediate feedback	feedback not available
activity-oriented	passivity-oriented

CHARACTERISTICS

• EMOTION-PERSONALITY	
ambiguous	set and unequivocal
change-oriented	stasis-oriented
ego involving or reflects positive sense of self esteem	non-ego involving or reflects negative sense of self esteem
reflects appropriate expression of emotion	reflects inappropriate expression of emotion
decisions controlled by the learner	decisions controlled by others or by chance
requires student to make decisions and abide by the consequences	does not require student to make decisions and abide by the consequences

• CREATIVITY	
evokes imagination	evokes imitation
open-ended	closed
versatile	limited
alternative responses possible	restricted responses required
nondirective	directive
interrogative	declarative
unusual	predictable
novel	conventional
does not lend itself to being judged right or wrong	does lend itself to being judged right or wrong

• SOCIAL	
respects individuality	stereotypical
reflects positive concern for people who are different	reflects negative concern for people who are different
reflects sensitivity to people	lacks sensitivity to people
reflects positive concern for people and things	reflects negative concern for people and things
nonprejudicial	prejudicial
fosters interpersonal skills	no interpersonal skills required

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CURRICULUM

VERBAL EXPRESSION (SPEECH)

(Appropriate)	(Does not Apply)
requires expanded verbal response	requires simple yes-no verbal response
requires sequencing of spoken terms	does not require sequencing of spoken terms
requires categorizing	does not require categorizing
requires differentiation of opposites	does not require differentiation of opposites
requires discrimination of parts and wholes	does not require discrimination of part and wholes
requires discrimination of singular and plural forms	does not require discrimination of singular and plural forms
emphasizes rhythm of language	does not emphasize rhythm of language

AUDITORY PERCEPTION

(Appropriate)	(Does not Apply)
requires organizing, reproducing, or sequencing of sounds and words	does not require organizing, reproducing, or sequencing of sounds and words
requires identifying auditory similarities	does not require identifying auditory similarities
requires identifying auditory differences	does not require identifying auditory differences
auditory directions required	auditory directions not required
requires identifying specific sounds	does not require identifying specific sounds
requires learning rhymes, songs, and finger plays	does not require learning rhymes, songs, and finger plays

CHARACTERISTICS

VISUAL PERCEPTION

(Appropriate)	(Does not Apply)
requires the student to identify visual similarities and differences	does not require the student to identify visual similarities and differences
requires the student to organize, reproduce, and remember a sequence of visual stimuli	does not require the student to organize, reproduce, and remember a sequence of visual stimuli
requires finding a specific object against a crowded visual environment or background	does not require finding a specific object against a visual environment or background
requires the student to differentiate right-left, front-back, near-far, top-bottom, and comparable characteristics of visual stimuli	does not require the student to differentiate right-left, front-back, near-far, top-bottom, and comparable characteristics of visual stimuli

MOTOR PERCEPTION

(Appropriate)	(Does not Apply)
requires body balance	does not require body balance
requires locomotor activity	does not require locomotor activity
involves body parts	does not involve body parts
requires imitative movements	does not require imitative movements
requires fine motor coordination	does not require fine motor coordination
requires using body parts of one or both sides of the body	does not require using body parts of one or both sides of the body
requires hand and arm movements past the midline of the body while head and body are stationary	does not require hand and arm movements past the midline of the body while head and body are stationary